

Grade 4 Science Assessment: Living Things and Their Habitats

Learning objective: To describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird, and to describe the life process of reproduction in some plants and animals.

Read each question carefully. Use your scientific knowledge to provide clear and accurate answers. Write in full sentences where required.

Nova the owl is observing the forest floor and the nearby pond. She notices a frog laying eggs in the water, while nearby, a rose bush is producing new shoots from its roots. High above, a mother squirrel is nursing her young in a nest.

Word bank: metamorphosis · pollination · asexual · reproduction · amphibian · germination · mammal

1. Name one way in which the life cycle of an insect, such as a butterfly, is different from the life cycle of a mammal. (2 marks)

2. Explain the process of pollination in flowering plants. Why is this important for the plant's life cycle? (3 marks)

3. Define the term 'asexual reproduction' and give one example of a plant that reproduces this way. (2 marks)

4. Describe two stages in the life cycle of an amphibian, such as a frog, that show how it changes as it grows from an egg to an adult. (3 marks)

5. Compare the ways mammals and birds care for their offspring. Why do you think this behavior is necessary for survival? (4 marks)

6. Nova observes a seed beginning to grow. Describe the main stages of plant development from a seed to a mature, flowering plant. Include the terms germination and pollination in your answer. (5 marks)

7. If a farmer wants to ensure his crops grow successfully, he must understand the life cycle of the plants. How does knowing about reproduction help him manage his farm? (6 marks)

Draw: Draw a labelled diagram showing the life cycle of a butterfly. Include the following stages: Egg, Larva, Pupa, Adult.



Extension challenge: Total: /25